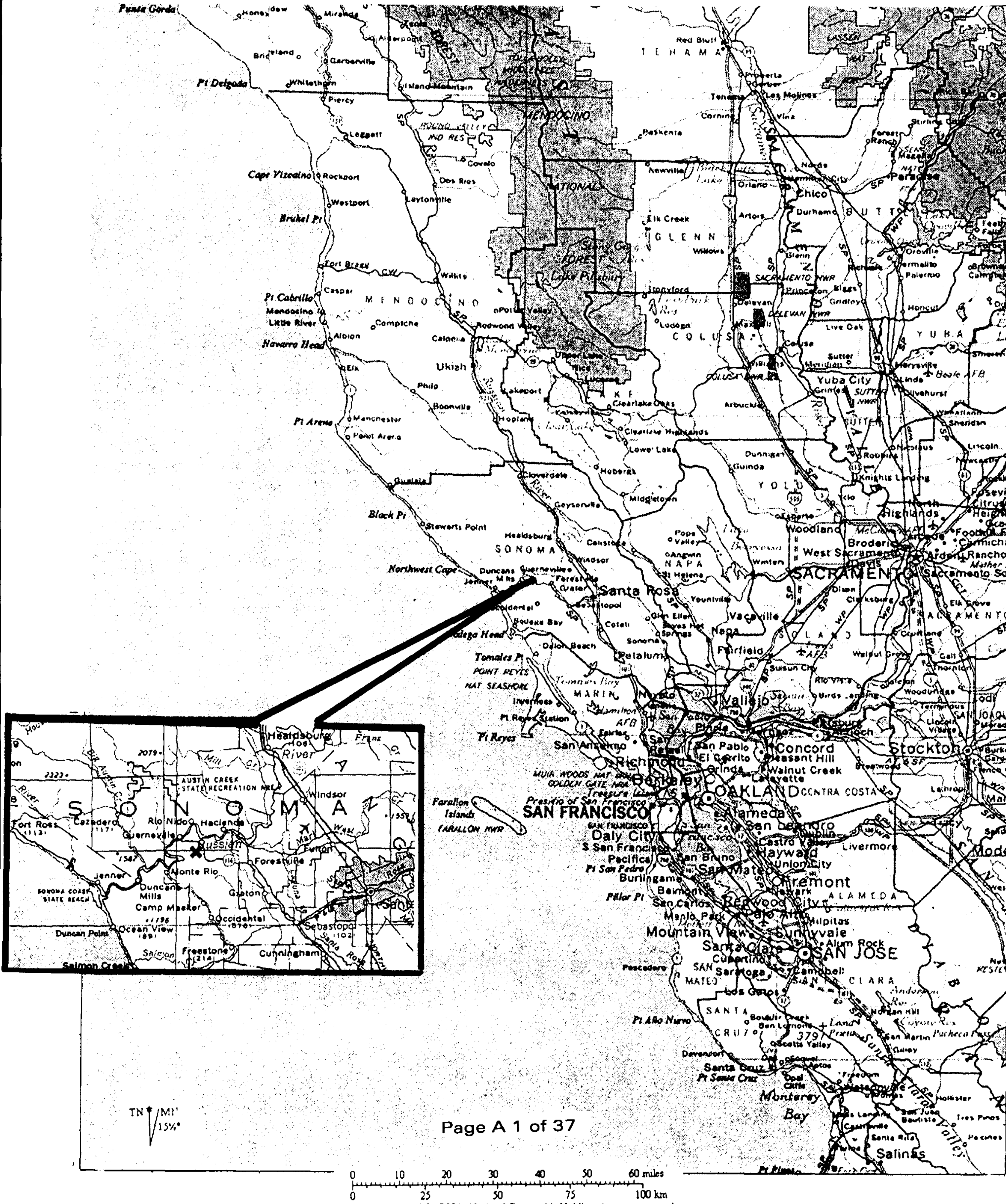
Appendix A

Timberland Conversion Application
and Conversion Plan

TIMBERLAND CONVERSION PLAT

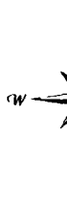
Applicant(s) Name(s): Paul Hobbs

Section(s): 33 & 34 Township 8N Range 10W MD B&M



Hillick Ranch THP/TCP

THP Topographic Map



Property Boundary-

STA Boundary- STA STA

Conversion Area-

Conservation Easement Area-

-Roads-

State Highway 116-

Existing Permanent Appurtenant Road-

-Watercourses-

Class I Watercourses-

Class II Watercourses-

Class III Watercourses-

Stream Classification Change-

Spring Area-

Domestic Water Source-

Proposed New Reservoir-

Existing Pond/Reservoir-

House/Structure-

California Water Service Company Well Location-

Raptor Nest Tree-

All THP area Site Class III Timberland

All THP area Moderate EHR

Map Scale: 1 inch = 718 feet

Contour Interval = 40 feet

T8N, R10W, MDBM

Portion of Section 33

Camp Meeker Quadrangle, Dated 1954

TIMBERLAND CONVERSION PERMIT APPLICATION AND PLAN

APPLICATION

1. Pursuant to Sections 4621-4628, Resources Code, and regulations contained in Title 14, California Code of Regulations, I (we)

Hillick Ranch
C/O Paul Hobbs
3355 Gravenstein Highway North
Sebastopol, CA 95472
(707) 280-9745

hereby apply to the Director of Forestry and Fire Protection for a Timberland Conversion Permit to exempt the timberland described herein, and shown on the attached map or plat as a part of this application, from forest practice stocking requirements for conversion to a non-timber growing use and/or to enable final immediate rezoning from TPZ.

2. Property description of area to be converted and/or rezoned from TPZ.

Section	Township	Range	Acreage	County	Assessor's Parcel Number (Optional)
33	*8N*	*10W*	*± 10*	*Sonoma*	*085-140-016*

3. Acres to be converted: *± 10*

4. The owner(s) of record of this timberland is (are):

Paul Hobbs
3355 Gravenstein Highway North
Sebastopol, CA 95472
(707) 280-9745

5. The recorded interest in this timberland is held under deed dated *7/7/2005* recorded in current document *#2005R097571* of official records in *Sonoma* County.

6.This timberland is assessed in the name of:

Paul Hobbs
3355 Gravenstein Highway North
Sebastopol, CA 95472
(707) 280-9745

7. I (we) intend to use this timberland in the future for: ***Commercial production of Premium Varietal Grapes***

8. Conversion will begin about *May, 2009* and be completed by *October, 2010.*

9. Is all or part of the conversion area in a Timberland Production Zone (TPZ)? ____ yes ✔ no. If yes show the area in TPZ with diagonal black lines on the conversion plat or map and complete the following items a through e.

a. Is check or money order to $100 payable to the California Department of Forestry and Fore Protection enclosed with this rezoning application as required? _____ yes _____ no.

b. Has application for immediate rezoning from TPZ been made to the county or city having property tax jurisdiction? _____ yes _____ no.

c. If applied for, has the county or city tentatively approved immediate rezoning from TPZ? ____ yes __ no.
If yes, give date _____.

d. Is there any other property zoned TPZ within one mile of the boundary of the TPZ area proposed for immediate rezoning? _____ yes _____ no.

e. Are there any proximate non-TPZ lands (on or off the property containing the TPZ proposed for rezoning) suitable for the proposed conversion use? _____ yes _____ no.
If no, explain why such non-TPZ lands are not suitable.

10. a. Is a check or money order for the basic $600 CDF timberland conversion fee (payable to the California Department of Forestry and Fire Protection) enclosed with this application?
✔ yes _____ no (See title 14, 1104.2 CCR).

b. Is a check or money order for the $1,250 Fish and Game impact fee (Section 711.4(d), Fish and Game Code) payable to the State of California enclosed with this application?___yes ✔ no

11. Is any of the conversion area in a Coastal Zone as provided for by the California Coastal Act of 1976?
____ yes ✔ no. If yes, show the area in the Coastal Zone by horizontal black lines on the conversion plat or map, and complete the following item a.

a. Has a Coastal Zone permit for the proposed conversion use been issued?
_____ yes _____ no. If yes, date of issuance _____.

12. What element(s) of the county or city general plan apply to the area within which the timberland proposed for conversion is located?

Three elements of the Sonoma County General Plan (1994) directly address activity included in this Timberland Conversion Plan (TCP):

- ***The Land Use Element***
- ***The Resource Conservation Element***
- ***The Public Safety Element***

The <u>land Use Element</u> addresses uses in areas designated for Resources and Rural Development. According to the General Plan, crop production is a permitted use in these areas.

Pertinent section of the Resource Conservation Element address soil resources (soil conservation and soil erosion), water resources, forest and woodland resources, and vegetation and wildlife resources. By committing to erosion and sediment control measures and to working only in non-winter periods, the landowner will effectively comply with the County's goals to conserve soil resources and to protect long-term soil productivity and economic value. Similarly, these measures will serve to protect water quality.

Forest and woodland resource goals seek to preserve, sustain, and restore forest resources for their economic, conservation, recreation, and open space values. Though the proposed action will remove 10 acres of forest land, the site will continue to provide economic and open space benefits to the County. The project involves conversion of less than ¼of one percent of the County' s timber base. Loss of this small percentage of timberland is not expected to significantly affect or negatively contribute to Sonoma County's conservation goals. Because the site is privately owned, it is not available for public recreational use.

Vegetation and wildlife goals include promotion and maintenance of plant and animal communities and protection of biotic resources, particularly rare and endangered species, from development activity. The project will remove approximately 10 acres from the local habitat base. Because the remainder of the property (157 acres) will stay in its current condition, this loss is not considered significant. Additionally, undeveloped areas on adjacent

properties provide corridors and cover. Fencing around the vineyard area only will provide corridors for wildlife movement through the area and access to most of the landowners property. No rare or endangered species have been identified or are known to exist on or adjacent to the project sites.

The Public Safety Element addresses geologic hazards, including landslides, and wildland fire hazards. The project site is in an area of high to moderate potential for landslides and with a high or very high potential for large wildland fires. There are no identified slides or unstable areas within te project boundaries and proper development practices will ensure that new slides will not result. Proper equipment and site maintenance will keep the risk of wildfire ignition to very low levels. Vineyards generally do not provide significant fuel sources to promote or carry wildland fires.

13. What is the zoning classification for all or part of the proposed conversion area that is neither TPZ nor Coastal Zone (use the designated zone term such as "Agriculture-Forest", not a letter-number designation)?

The zoning classification for this property is Resources and Rural Development (RRD) with 100 acre densities. Permitted uses of this zoning classification include removal of timberland and outdoor growing and harvesting of crops. Conversion and vineyard development are consistent with this zoning classification.

14. Does the county, city or a district have a permit zoning, or other approval jurisdiction for the project that is the purpose of the conversion? ✔ yes _____ no. If yes, complete the following items a. through d.

    a. Name of local government entity ***Sonoma County***

    b. Name the type of approval, zoning, or permit required. ***Erosion Control Plan (ECP) approval pursuant to the Sonoma County Vineyard Erosion and Sediment Control Ordinance.***

    c. Has the local government agency submitted an environmental impact report or negative declaration to the State Clearinghouse as required by the California Environmental Act (CEQA) and regulations? ___ yes ✔ no. What is the State Clearinghouse number? ***CDF is the lead agency for the proposed Timberland Conversion Permit. Sonoma County will not pursue CEQA analysis of the proposed conversion.***

    (The Timberland Conversion Permit cannot be issued until this is done and local government adopts the documents.)

    d. Has the local government granted the necessary approvals, zoning, or permits required for the project? _____ yes ✔ no.

    If no, explain in the appropriate section of the Timberland Conversion Plan.

15. All property owners must sign the following affidavit unless the owner is a partnership, corporation or other organization, in which case the signer must be a partner, corporate officer, or organization officer respectively. An owner's agent may sign the affidavit, if power of attorney designating the agency, and signed by all the owners, a partner, or corporate or organization officer, for these respective kinds of ownerships accompanies the application. If the affidavit or power of attorney is signed in state other than California, the signature(s) must be notarized.

AFFIDAVIT

I (We) own the herein described property, and declare a bona fide intent as defined in Section 100(b), Title 14, California Code of Regulations to successfully complete conversion of the herein described timberland for the stated purpose in accordance with the conversion plan and plat or map, all hereby acknowledged as a part of this application, and in accordance with the timberland conversion permit, timber harvesting plan, and conditions required through the California Environmental Quality Act and related regulations.

I (We) understand that if the conversion fails or is abandoned, that I (we) can be required to restock with trees those areas that do not comply with forest practice stocking requirements. I (we) understand that if we fail to do so, the Director of Forestry and Fire Protection can have the restocking done, including necessary site preparation, and charge me (us) with the costs.

I (We) declare under penalty of perjury that I (we) have fully read this application, conversion plan and plat or map, and that the information given therein is correct to the best of my (our) knowledge.

Executed on_____ 2008, at ***Sebastopol***, State of California.

Signature(s) of Property owner(s) Title

Owner

Paul Hobbs

TIMBERLAND CONVERSION PLAN

INSTRUCTIONS

Applicants must complete general section of this plan and such additional sections as may be appropriate for the specific future use to which the timberlands are to be converted. You may attach supplemental pages to provide complete answers, or explain a use not covered. Code the supplemental or continued answers by using the appropriate question number, such as General-7, Grazing-5, etc. Additional information may be required as appropriate.

The Timber Harvesting Plan (THP) upon approval by the Director of Forestry and Fire Protection for the timber operations for this timberland conversion thereby becomes a part of this conversion plan.

In addition to the Timber Harvesting Plan itself, either the Director or the environmental review process may prescribe measures to reasonably ensure the success of the conversion or to provide additional environmental protection. When the applicant agrees to these stipulations as conditions for the issuance of the Timberland Conversion Permit, they shall become part of the plan, either incorporated therein or attached as a supplement thereto.

GENERAL

Paul Hobbs
Timberland Owner(s)

1. The responsible person who may be contacted if different from those given in the Application section.

Paul Hobbs
3355 Gravenstein Highway North
Sebastopol, CA 95472
(707) 280-9745

Glenn Edwards
P.O. Box 997
Ukiah, CA 95482
707-489-8688

2. Have you received professional advice or assistance in planning this conversion?
✔ yes ____ no. List name and address of people professionally trained in land management who are advising you on this conversion.

Glenn T. Edwards
Consulting forester-RPF #2363
P.O. Box 997
Ukiah, CA 95482
707-489-8688

Lee Erickson, Erickson Engineering. Inc.
PhD Civil #45660, Agricultural #468
Box 446
Valley Ford, CA 94972
707-795-2498

Tim Best
Certified Engineering Geologist
1002 Columbia St.
Santa Cruz, CA 95060
831-425-5832

Dean Schlicting
Consulting Botanist
P.O. Box 435
Calpella, CA 95418
707-485-7211

Charles Benbow-LTO
40 East Branch Rd.
Garberville, CA 95542
707-845-7365

Matt O'Connor
Registered Geologist
O'Connor Environmental, Inc.
P.O. Box 794
Healdsburg, CA 95448
707-431-2810

BACE Geotechnical
Erik Olsborg
P.O. Box 749
Windsor, CA 95492
707-838-0780

Matt Richmond- Biologist
Redwood Coast Associates
P.O. Box 1635
Willits, CA 95490
707-459-1067

3. Do you have or can you obtain sufficient financial resources to carry out this conversion?
✔ yes _____ no

Should the conversion fail or be abandoned do you have or can you obtain sufficient financial resources to return the land to timber production?
✔ yes _____ no.

Should the proposed project fail or be abandoned for any reason, the applicant will be responsible to return the land back into timber production through tree planting which will meet or exceed the current forest practice standards (refer to item #8 for additional information).

4. How will the timber be logged? (Will all or only some of the trees be cut? Will area be tractor-logged or cable-logged, etc?) Describe:

All merchantable confers and hardwoods within the proposed conversion areas will be cut and skidded to a landing area utilizing tractor equipment. All merchantable logs will be loaded onto logging trucks and removed from the site. Once the merchantable material is removed from the site the non-merchantable trees, stumps and brush will be brush-raked into piles to burned. All timber harvesting operations associated with the proposed conversion project will strictly conform to the provisions contained in the Timber Harvest Plan and the Forest Practice Rules. The designated tractor Licensed Timber Operator will be responsible for the conduct of operations associated with the proposed conversion project.

5. Slope percent ranges in gradient generally from *0%* to *30%*. Slopes face generally toward the: ***North-easterly facing ridgetop.***

6. Describe special measures to be taken during and after logging, including road and skid trail construction, and use to prevent erosion, protect soil, and to protect local streams, ponds, or lakes on or near the conversion area.

During logging and clearing operations equipment operators will exercise due care and diligence to work equipment along the contour as much as possible. No significant excavation will be necessary for landing construction as these facilities will be located on gentle slope area (generally less than 10% slopes). Skidding equipment will not need to excavate any skid trails and equipment can easily move along the surface of the ground. Heavy equipment associated with vineyard development will be limited to slopes of 30% or less. All logging activities associated with vineyard development will not operate within any WLPZ or EEZ of a classifiable watercourse. Erosion control practices, as specified below, will be implemented following logging operations to help control any potential accelerated erosion if operations are approaching the winter period.

There are no watercourses present within the proposed conversion area. Upon completion of logging operations, the following measures will be implemented to prevent erosion, protect soil, and to protect watercourse areas:

- ***Straw mulching and seeding areas prior to October 15 of the year of operations to provide plant residues and densities of approximately 95% to minimize sheet and rill erosion.***
- ***All seeded areas will be maintained, repaired, re-seeded and re-mulched as needed.***
- ***Limiting all clearing operations during the non-winter period (May 1 to October 15).***
- ***Regular (bi-monthly) field inspections during the winter period (October 15 to May1) to check that all erosion control structures are functioning properly to ensure that there is no net increase of sediment transport.***

Loss of soil and sediment transport to watercourses from the proposed project site will be prevented through the proper implementation of the above measures and in compliance with the Forest Practice Rules. If timber harvesting activities require more than one season, the measures stated above will be in place prior to October 15 of each year. An Erosion Control Plan has been specifically prepared for the conversion area and incorporates mitigation measures to prevent erosion, and to protect local streams, ponds, or lakes near the conversion area.

7. Describe how the area will be prepared for new use after logging. Describe methods of slash disposal and woody vegetation treatment, and any additional land treatment measures that will be taken:

Following completion of commercial timber harvesting activities, all remaining slash, roots and stumps will be mechanically piled with a tractor equipped with a brush rake and either burned in accordance with the Northern Sonoma County Air Pollution Control District (APCD) and CDF regulations or chipped on-site. The project area will then be ripped to approximately 36 inches, rock picked and cultivated. The site will then be stabilized using seeding and mulching as described above.

In areas where a permanent cover crop is desired, a staggered program of reseeding every two to three years will ensure that appropriate plant residues and densities are achieved in the vineyard and avenues. This permanent cover crop will be maintained at plant residues and densities of a minimum of 95%, which will minimize on-site sheet and rill erosion.

The vineyard manager and work crew will monitor the project area for any areas of accelerated erosion or storm water-related problems that may occur during the winter season or during storm events in the non-winter period, and will implement appropriate stabilization measures as necessary. All necessary precautions will be taken to ensure that the beneficial uses of water will be protected from sediment infiltration.

8. If conversion fails, or is abandoned for any reason, how will the area be returned to timber growing use to meet the purpose of the Forest Practice Act? Describe land preparation, and seeding or planting measures:

Should the proposed conversion project fail or be abandoned for any reason, the area will be mechanically site-prepared and planted to redwood and Douglas-fir at least 450 trees per acre under supervision of a Registered Professional Forester (RPF). Replanted areas would meet Forest Practice Rule (FPR) stocking requirements (14 CCR 912.7). Within two years of planting, the RPF will conduct a formal stocking survey to determine if the areas meet the FPR requirements. If stocking levels are below FPR requirements, the area will be replanted to ensure that the FPR requirements are met. Once the are meets FPR standards, the RPF will file a formal completion and stocking report with CDF.

9. Area on which conversion will be completed within 5 years ***± 10*** acres. Date by which logging will be completed: ***October 15, 2008***. Date by which final conversion to new use be completed ***October 15, 2011***

10. What assurances can you give that his conversion is feasible:

The project site has been examined by the applicant, vineyard managers, engineers, geologists, biologists, soil specialists, foresters and other qualified professional individuals familiar with vineyard development, soil suitability, and slope stability. The proposed conversion project has been undertaken to utilize the favorable topography, soils, climate, elevation and access within the property. The soils within the project area are conducive to vineyard production and within the greater local area, other properties have undertaken similar conversion projects and have proven successful in producing premium varietal grapes.

Compliance with all governing agencies along with the practical knowledge or proven and tried practices in all aspects of vineyard development and management insure a very high degree of probability to the successful conversion of the present land use to the commercial production of premium varietal grapes. The owner is very knowledgeable in the production and management of premium varietal grapes and has been involved in the wine industry for the past 25 years. The owner's commitment to this project both in financial resources and attitude are strong assurances of its success.

11. Describe the specific plans for development of the new use:

Mr. Paul Hobbs, dba Hillick Ranch, proposes to establish a 10 acre vineyard on his 167 acre property located in Southwestern Sonoma County, California. The proposed project, including construction of the vineyard and associated facilities, will encompass a total of approximately 10 acres of the 167 acre property. Vineyard support facilities will comprise a reservoir and an equipment storage building. The proposed vineyard development will incorporate only 5% of the Hillick Ranch property, retaining the remaining 157 acres of the property in timberland. All of the 10 acres proposed for vineyard development is comprised of timberland. The proposed project will entail a variety of activities in several stages that will culminate in the installation and operation of the proposed vineyard. In order to assess the potential impacts of the project, both directly from project activities as well as indirectly and cumulatively, the project description encompasses the harvest of timber, conversion activities to construct the vineyard (i.e., vineyard units, infrastructure, and vines); and ongoing operations and maintenance of the vineyard after installation. Activities conducted under each phase of the project are described below.

Actions associated with timber harvest–related activities that are addressed in this analysis include:

- ***harvest of commercially valuable trees from approximately 10 acres of timberland;***

Due to the ultimate conversion from one agricultural use to another (timber to vineyard), the logged area will not be restocked.

Subsequent to the timber operations and within the same summer period, 10 acres will be prepared for vineyard installation. Actions associated with vineyard preparation that are addressed in this analysis include:

- ***removal of all remaining vegetation by blade ripping and raking;***
- ***plowing to a depth of 36 inches;***
- ***installation of vineyard drainage and erosion control system.***

The removed vegetation will be piled and burned on site. The vineyard drainage system will subsequently be installed and made operational. The drainage system will be designed and its implementation overseen by a registered engineer. Design features will include sediment retention systems designed to meet a 100-year storm event. The perimeter and within-pad access road system will also be constructed. All roads will be surfaced and have appropriate surface erosion control measures in place and functioning prior to the winter period. These roads and the associated mitigation measures will be designed by a registered engineer as part of the vineyard pad development.

A water collection, storage, and distribution system will be designed and implemented for vineyard irrigation. The components of this system will include a 11-acre-foot reservoir site, as indicated on the maps, an underground pipe system for primary distribution, and a drip irrigation system for tertiary distribution. Evaluation of the cumulative effects of the water storage and supply system included evaluation of the geotechnical stability of the reservoir site and the sediment retention value of the reservoir.

After the timber is harvested and the water systems are constructed, the vineyard area will be constructed. Activities associated with vineyard construction that are addressed in this analysis include:

- ***deep ripping of the soil;***
- ***installation of the vine support structures (i.e., trellis system);***
- ***installation of the drip irrigation system; and***
- ***construction of animal exclusion fencing around the perimeter of each vineyard unit to protect vines from pigs and deer.***

The ongoing growing and harvesting of grapes will involve culturing vines; maintaining site facilities (road maintenance, sediment trap cleaning, weed abatement); protection of the fruit; organic material and straw mulching of the soil; grape harvest; and transport of grapes from the site. Actions associated with the ongoing process of growing and harvesting grapes that are addressed in this analysis include:

- ***physical tending of the vines and support structures;***
- ***shallow plowing for weed control and control of soil compaction;***
- ***application of nutrients and soil structure augmentations;***
- ***application of fungus and pest controls;***
- ***application of irrigation water;***
- ***operation of onsite farm equipment;***
- ***annual harvesting of grapes;***
- ***operation of offsite transportation equipment;***
- ***implementation of cover-cropping and composting techniques for soil surface protection, integrated pest management and nutrient augmentation; and***
- ***maintenance of access road***

The zoning classification for this property is Resources and Rural Development (RRD) with 100 acre densities. Permitted uses of this zoning classification include removal of timberland and outdoor growing and harvesting of crops. Conversion and vineyard development are consistent with this zoning classification. There is approximately 1.1 miles of existing permanent roads associated with the project. It is estimated that the entire project development, once approved, will encompass approximately 2 years.

The work involved in vineyard development shall be scheduled as follows:

■ ***May, 2008***	***Submit Conversion Application documents for review and approval.***
■ ***First operating season***	***Commence logging activities. Following completion of logging operations, piling of slash and stumps to be implemented. Grade necessary areas, cross rip vineyard, disc and remove rocks and roots as needed. Introduce soil amendments as needed. Install drain systems, rock check dams, detention basins, energy dissipater and sediment barriers as prescribed in Erosion Control Plan. Prior to October 15, plant temporary cover crop on entire vineyard area, spread straw mulch and irrigate cover crop until established.***
■ ***First winter period***	***Maintain all erosion control measures throughout winter period through weekly inspections. Burn slash piles as permitted.***
■ ***Second operating season***	***Mow cover crop, install irrigation system, stakes and trellis system for grape vines and plant rootstock. Install, maintain and/or repair erosion control measures as needed on all vineyard areas.***
■ ***Second winter period***	*****See annual maintenance schedule below*****

<u>Annual Maintenance Schedule</u>

All permanent erosion control measures will be continually monitored and maintained throughout the vineyard development areas. Particular attention will be given prior to and during the winter period (October 15 to May 1). Measures to ensure that all erosion control measures of the project are properly implemented and maintained on an annual basis will include but not be limited to the following practices:

- ***Reseed cover crop as needed to maintain plant residues and densities at 95% and straw mulch on vineyard areas, avenues, benches and erosion prone areas as needed.***
- ***Install additional erosion control fencing and straw bale sediment barriers as needed.***
- ***Maintain sediment retention structures, road side ditches, culverts, drop inlets, rock-lined energy dissipater, rock check dams and related sediment control structures.***

The above plan of development is tentative and the schedules indicated are estimates only and may be subject to change by factors beyond the control of the applicant.

List and attach any documents and sketches illustrating or showing proposed use.

- ***Erosion Control Plan***

AGRICULTURE-GRAZING

The following additional information is needed for lands to be devoted to agricultural purposes including grazing.

1. **Has the suitability of the soil for the intended agricultural use been determined through examination by and consultation with farm advisors, Soil Conservation District Specialists, or other qualified professionals?**
   _✔_ yes _____ no
   If yes, give name and title to specialists and describe findings:

Glenn T. Edwards	*Lee Erickson*	*BACE Geothechnical*
Consulting forester-RPF #2363	*Erickson Engineering Inc.*	*Erik Olsborg*
P.O. Box 997	*Valley Ford, CA 94972-0446*	*P.O. Box 749*
Ukiah, CA 95482	*707-795-2498*	*Windsor, CA 95492*
707-489-8688		*707-838-0780*

   FINDINGS:
   The proposed project site has been evaluated both in the field during plan preparations by the above stated individuals as well as reviewing the following literature pertaining to climate, topography, vineyard development, soil suitability and characteristics:

   - ***Cover Crops: A Practical Tool for Vineyard Management, Technical Projects Committee of the American Society for Enology and Viticulture in Association with the Viticulture and Enology Research Center, June 1993.***
   - ***Soil Quality Information Sheets, USDA, Natural Resources Conservation Service, April, 1996.***
   - ***Developing a Hillside Vineyard, Lisa Woo Shanks, Napa County Resource Conservation District, March, 1992.***
   - ***Sample Costs to Establish a Vineyard and Produce Wine Grapes, U.C. Cooperative Extension-1992.***
   - ***Farming the Environment: Agriculture for the Future, Dennis Bowker, Resource Conservationist.***
   - ***Comparison of 32 Cover Crops in an Organic Vineyard on the North Coast of California, Robert L. Bugg, Sustainable Agriculture Research and Education Program, U.C. Davis, CA.***
   - ***USDA, Sonoma County Soil Survey, 1972.***

2. **Describe the soils now supporting timber or other woody vegetation:**

   The proposed conversion area is blanketed by one soil series, the Hugo-Josephine (HnG) Series. The soil series is described as follows:

   - ***The Hugo-Josephine (HnG - 50 to 75% slopes) consists of well-drained very gravelly loams that have a gravelly sandy clay loam subsoil. At a depth of 30 to 60 inches the soils are underlain by weathered, fine grained sandstone and shale. This soil is found on mountainous uplands. According to the USDA reference, a typical profile includes 8" of pale brown very gravelly surface soils, with subsoils of gravelly sandy clay loam. Permeability is moderate, with fair strength, medium compressibility, and good resistence to piping. Runoff is medium and the hazard of erosion is moderate at low slope, increasing at higher slopes.***

   This soil series is believed suitable for vineyard development, based on historical and ongoing agricultural activity in similar upland soils in the region. Soil amendments are typically applied in response to soil testing, in order to moderate acidity. Nutrients are applied to vineyards on an as needed basis through foliar or irrigation methods, based on annual monitoring results.

3. **Describe soil treatments necessary or desirable for the new use:**

Once the project area has been cleared, it is anticipated that naturally occurring soil additives like gypsum, limestone and dolomite will be applied to the soil to adjust the balance of cations that include potassium, calcium and magnesium. These amendments are broadcast on the soil surface and then ripped in to a depth of approximately 2.5 feet by a deep ripping tractor equipped with rippers. If commercial fertilizers are to be applied to all seeded areas, the fertilizer will be pelleted or granular form with a minimum guaranteed analysis of 16-20-0, applied at the following rates:

- ***16-20-0 & 15% Sulphur 500 lbs/acre***

4. **How will other woody vegetation left after logging be eliminated? (Check method)Mechanical clearing __✔__ Chemical eradication _____ Burn __✔__ Other (specify) _____**

Once all merchantable material has been removed, the remaining vegetation, slash, stumps and roots will be mechanically piled with a brush rake for burning. Burning will be in accordance with the Northern Sonoma County Air Pollution Control District Regulations and CDF fire laws and regulations.

5. **How will natural woody growth be prevented from revegetating the area? (Check Method) Mechanical removal _____ Reburn _____ Chemical Eradication __✔__ Other (Specify) *Hand labor***

Chemical Eradication: Mowing of the permanent no-till cover crop will be the primary defense against competing vegetation with only minimal post-emergent herbicide applications around each plant. Herbicides will not be used in the vineyard for the first two growing seasons of the new vines. Following the third growing season, it is anticipated that the herbicides which may be used would include Roundup and/or Sulfan as a combination spray at a typical rate of one quart per acre of Roundup and two quarts per acre of Sulfan if necessary for weed and vegetation control immediately around the vines. The timing of the spray program is weather dependent but could begin as early as December to February and end in June or July. Ideally there will be one application but weather conditions may require as many as three applications during the December thru July period. No pre-emergent compounds are intended for use and only non-leaching herbicides will be utilized for weed and vegetation control under the established vines. These chemicals have been chosen for their fast action, short half-life and resistance to movement in the soil environment.

Hand Labor: Hand labor may be utilized in conjunction with chemical eradication for control of woody vegetation regrowth. This method employs the use of a labor crew to hoe the vegetation away from the grapevines. This method is typically utilized during the first two growing seasons.

6. **What kind and rate of application of seed or kind and spacing of planting stock will be used?**

Seed Application:

	Seed/Straw	*Lbs./Acre*
●	*Zorro Fescue*	*25.0*
●	*Blando Brome*	*12.5*
●	*Rose Clover*	*7.5*
●	*Crimson Clover*	*5.0*
		50.0 Lbs/acre

Planting Stock:
Vineyard will be developed on a 5' x 7' spacing. The root stock to be utilized for the vineyard will be drought resistant & phylloxera resistant rootstock (#3309).

7. **If conversion is for grazing, what kind and number of livestock are being grazed now on this property?**

   Not Applicable

8. **What water developments exist now on the property?**

   Currently there is a new well on the property that produces approximately 5GPM. This well is not currently used.

9. **What additional water development are planned for conversion?**

   There is one water development project planned for the conversion. An 11 acre-foot reservoir is proposed as part of the vineyard development. For a typical planting density of about 1100 vines/acre, the seasonal water demand at 5 gal/vine/week is about 90 gal/vine/season or 0.29 acre-feet per acre per year over 10 acres (net) and can be met by a 10 acre-foot reservoir (refer to attached Erosion Control Plan for further information and detail).

10. **What length of fence exists now in connection with the conversion area?**

    Currently the property is partially fenced along the Northern, Southern and Western property boundaries with older four foot wire fencing. There is currently no fencing along the Eastern property boundary.

11. **How much additional length of fence will be added in connection with conversion?**

    It is proposed to fence the conversion area only, and not the property boundary. It is estimated that approximately ±3,000 feet of new deer fencing will be needed for the proposed conversion area. The fencing will consist of seven foot wire fencing secured by adequate fence posts either metal and/or wood. Gates will be installed at several locations in the fencing to provide escape routes for any animals that may get inside the fencing.

12. **Describe buildings or improvements now on property where conversion is planned:**

    There are currently no buildings or improvements located on the property.

13. **Describe buildings or improvements to be added in connection with conversion:**

SUBDIVISION
Not Applicable

RECREATION
Not Applicable.

WATER DEVELOPMENT PROJECTS
Not Applicable

MINING
Not Applicable

OTHER

OTHER INFORMATION

Other Information contained in this section:

- **Archaeology**
- **Biological Resources**
- **Visual Resources**
- **Traffic Resources**
- **Hydrology**

ARCHEOLOGY

During the course of the conversion application preparation, an archaeological records check was performed through the Northwest Information Center at Sonoma State University. An archaeological survey was performed during the spring of 2006 for the project area and is described in the attached Confidential Archaeological Addendum. The archaeological records check did not reveal any recorded Native American cultural resources within the proposed project area. The field survey conducted by the RPF did not yield any evidence indicating any Native American cultural resources within the proposed project area. The records check did reveal that there is a previously recorded historical resource within a portion of the proposed project area. This information is contained in the attached Confidential Archaeological Addendum.

BIOLOGICAL RESOURCES

During pre-field research for conversion plan preparation, several sources were queried for biological resources, particularly plants and animals designated as rare, endangered, threatened or species of special concern, were evaluated within and adjacent to the proposed project area. An "evaluation" list of those species whose range and habitat requirements could possibly overlap the proposed project areas was compiled utilizing the Natural Diversity Data Base (NDDB-Quad overlays for the Camp Meeker, Guerneville and Duncans Mills Quads and fully condensed reports-December, 2005), the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California and the Forest Practice Rules were used as scoping tools to identify habitat and/or individuals species occurrences within or near the proposed project areas. Two botanical surveys were performed for the proposed project, one by Dean Schlicting, Consulting Botanist, in 2002 and one by Matt Richmond, Redwood Coast Associates, in 2006/2007. The reports are attached which details information relative to vascular plants. The following is a list of the sources queried during pre-field research:

- ***Wildlife Identification Handbook; CLFA Workshop; November, 1990.***
- ***1989 Annual Report on the status of California's State Listed Threatened and Endangered Plants and Animals; Pub. by Calif. State Resources Agency, Dept. of Fish and Game; Mar., 1990.***
- ***"California Wildlife". Vol. , II, III; Pub. by California Dept. of fish and Game; Mar., 1990.***
- ***Consultation and correspondence with Dean Schlicting, Consulting Botanist, Box 435, Calpella, CA 95418, 707-485-7211.***
- ***State and Federal Endangered and Threatened Animals of California (Revised Oct. 1990), State of California, The Resources Agency, Department of Fish and Game.***
- ***California Native Plant Society-Electronic Inventory Of Rare and Endangered Vascular Plants of California, 1998.***
- ***California Department of Fish and Game Natural Diversity Data Base, RareFind 2, quad overlays for the Duncans Mills, Camp Meeker, and Guerneville Quads, run date 12/2005; Fully Condensed Summary Reports.***
- ***California Department of Fish and Game. November 1994. Coho Salmon Habitat Impacts Qualitative Assessment Technique for Registered Professional Foresters.***
- ***California Report on Impaired Surface Waters prepared as required in Clean Water Act Section 303(d), March 1998, State of California Regional Water Quality Control Board San Francisco Bay Region.***
- ***Hartman, Steven L., California Plant Communities. (Reseda, CA Nature Base, 1997).***
- ***Peterson, Roger Tory, A Field Guide to Western Birds (Boston New York: Houghten Mifflin Company, 1990).***
- ***Sawyer, John O., and Todd Keeler-Wolf, A Manual of California Vegetation. (Sacramento; California Native Plant Society, 1995).***

Four formal protocol level surveys were conducted during plan preparation, one for the Northern Spotted Owl, one for the Northern Goshawk , one for raptors, and one for Vascular Plant species. These surveys have been briefly discussed below:

Northern Spotted Owl surveys: The Northern Spotted Owl (Strix occidentalis caurina), is a species listed as Federally "Threatened" and Fish and Game "Species of Special Concern". The CDF NSO Data Base was queried for the THP area as well as 1.5 miles from the THP boundary. The CDF Data Base listed three NSO territories (refer to Data Base information contained in Section V of this THP for detail). The project area has been surveyed according to the guidelines specified in the U.S. Fish and Wildlife Protocol during the 2001 thru 2008 breeding seasons. No Northern Spotted Owls responded either vocally or visually during the survey periods. NSO "No Take" Technical Assistance letters were received from the USF&WS for the 2004 and 2005 breeding seasons and are attached for reference. Surveys for the 2008 breeding season have been conducted in accordance with the guidelines specified in the USF&WS protocol. A NSO "No Take" Technical Assistance letter will be obtained from the USF&WS prior to the start of operations.

Northern Goshawk: The Goshawk is listed as a Sensitive Species that is a year round resident of portions of Sonoma County. The WHR system indicates that the species uses larger dominant conifer and deciduous stands for nesting and cover within the densest components of a stand. Snags and spike trees are also utilized as observational perches. Two protocol-level surveys were conducted in the 2001 through 2008 seasons by the RPF in accordance with guidelines specified in the "Survey protocol for Northern Goshawk (Accipiter gentilis) on National Forest lands in the Pacific Southwest Region" June 5, 1992. The protocol-level surveys consisted of two separate site visits within the THP area in which broadcasted tape recordings of goshawk vocalizations (utilizing broadcast equipment) were performed within the THP area. The surveys were conducted during the nestling period (early June through early July) and the post-fledging dependency period (early July through the August). To date no responses have been detected within the THP area during the survey periods.

A botanical survey has been conducted on the project area by Dean Schlicting, Consulting Botanist, during the 2002 season and in 2006/2007 by Matt Richmond, RCA Associates. Copies of the reports are attached in the THP.

The following is a list of rare, endangered, threatened and sensitive species that the Board of Forestry has identified that could possibly occur within the proposed project areas:

TERRESTRIAL

Northern Spotted Owl	*Marbled Murrelet*
Northern Goshawk	*Great Blue Heron*
Bald Eagle	*Osprey*
Golden Eagle	*Great Grey Owl*
Peregrine Falcon	*Great Egret*

Northern Spotted Owl (Strix Occidentalis Caurina)- is a species listed as Federally "Threatened" and Fish and Game "Species of Special Concern". The CDF NSO Data Base was queried for the THP area as well as 1.5 miles from the THP boundary. The CDF Data Base listed three NSO territories (refer to Data Base information contained in Section V of this THP for detail). The project area has been surveyed according to the guidelines specified in the U.S. Fish and Wildlife Protocol during the 2001 through 2008 breeding seasons. NSO "No Take" Technical Assistance letters were received from the USF&WS for the 2004 and 2005 breeding seasons and are attached for reference. No Northern Spotted Owls responded either vocally or visually during the survey periods. Surveys for the 2008 breeding season have been conducted in accordance with the guidelines specified in the USF&WS protocol. A report regarding habitat for the Northern Spotted Owl will be submitted to CDF/USF&WS for the 2008 breeding season for review and technical assistance in securing a "No Take" certification for the proposed plan. This "No Take" certification will be submitted to CDF prior to plan approval.

For the Northern Spotted Owl:

Compliance with the disclosure requirements of the FPR and CEQA regarding NSO guidelines:

- ***No timber operations will occur until a valid NSO technical assistance (TA) has been obtained from the USF&WS***

and amended into the plan.

- ***Surveys from the 2001 thru 2008 seasons have been conducted in conformance with the USF&WS approved NSO survey protocol. Technical Assistance letters for the 2005 and 2006 seasons have been secured through the USF&WS for operations conducted under THP #1-02-216 SON. These letters are attached for reference.***

- ***Should a NSO activity center be located within or adjacent to the plan area, the following standard protection measures will be adopted (in accordance with a subsequent TA with the USF&WS):***
  - ***(a): the buffer zone for NSO's shall consist of the area within a 1000 ft. radius of a tree or trees containing a nest or supporting an activity center.***
  - ***(b): no timber harvest operations will occur within a 500 ft. radius of a NSO activity center, and at a minimum the habitat qualities of functional roosting habitat (minimum 60% canopy, avg. stand trees > 11" DBH) will be maintained within the areas between 500 ft. radius and 1000 ft. radius.***
    - ***©: the critical period for NSO breeding is February 1 until August 31. During the critical period, no timber harvest operations are permitted within the buffer zone.***
    - ***(d): helicopter yarding within 0.50 miles of a NSO activity center is prohibited between February 1 and August 31.***
    - ***(e): a minimum of 500 acres of suitable NSO habitat will be retained within an area out to 0.7 miles, surrounding a tree ro trees containing a nest or supporting an activity center.***
    - ***(f): a minimum of 1336 acres of suitable NSO habitat will remain post-harvest within the area out to 1.3 miles, surrounding a tree or trees containing a nest or supporting an activity center.***
- ***The person who submitted the original plan, or the successor in interest will submit subsequent consultations or letters of technical assistance to the Department as enforceable amendments to the plan prior to operations being conducted pursuant to theat consultation or letter of technical assistance.***

Northern Goshawk (<u>Accipiter gentilis</u>)- The Goshawk is listed as a Sensitive Species that is a year round resident of portions of Sonoma County. The WHR system indicates that the species uses larger dominant conifer and deciduous stands for nesting and cover within the densest components of a stand. Snags and spike trees are also utilized as observational perches. Two protocol-level surveys were conducted in the 2001 through 2008 seasons by the RPF in accordance with guidelines specified in the "Survey protocol for Northern Goshawk (Accipiter gentilis) on National Forest lands in the Pacific Southwest Region" June 5, 1992. The protocol-level surveys consisted of two separate site visits in the designated survey area in which broadcasting tape recordings of goshawk vocalizations (utilizing broadcast equipment) were performed along the existing roads within the THP area. The surveys were conducted during the nestling period (early June through early July) and part of the post-fledging dependency period (early July through the first part of August). To date no responses have been detected within the THP area during the survey periods.

Compliance with Fish & Game Code 3503.5
A focused nesting raptor survey was conducted by the RPF prior to and during the preparation and operations associated with THP #1-02-216 SON. These raptor surveys were conducted during the 2002 through 2008 breeding seasons. The survey methodology consisted of the following:

<u>Survey Methodology</u>:

Survey 1: Consisted of the RPF systematically traversing the plan area to look and listen for breeding raptors, raptor nests, and sign (ie. feathers, white wash, plucking posts, etc.). All Raptor sightings, raptor nests, and sign were recorded. The traverse was conducted in the early morning hours (just prior to sunrise) and concluded around 11 am. The lines of traverse were no further than 50 meters apart and provided coverage of the entire project area. If a raptor or a potential raptor nest was observed within or near the proposed project area that the RPF could not identify, a wildlife biologist would be employed to confirm the identification of any such raptors and/or potential nests.

Survey 2: Consisted of a "sit and wait" survey. The RPF visited three locations where "sit and wait" survey station were located so that optimum acoustical and optical coverage was achieved (refer to attached raptor survey map for location of survey station). These stations were visited for 60 minutes during the time the RPF looked and listened for raptors. If a raptor or a potential raptor nest was observed within or near the proposed project area that the RPF could not identify, a wildlife biologist would be employed to confirm the identification of any such raptors and/or potential nests.

<u>Survey Results:</u>

The RPF identified one nest structure in a 27" DBH second growth Douglas-fir tree within the Eastern portion of the property that appeared to be utilized by a red shouldered hawk. This nest tree is located approximately 125 feet East from the closest THP boundary. This tree has been retained from the previous THP (#1-02-216 SON) and will not be disturbed. No other raptor species or associated nest trees were observed within the proposed THP area by the RPF during plan preparation.

During timber harvesting activities, to insure the intent of Fish and Game Code Section 3503.5 pertaining to no loss of an active raptor nest the LTO shall.

- ***Physical Inspection***
  - ***Prior to harvesting, each tree harvested will be inspected by the LTO and or his fallers for any active raptor nests.***

- ***Retention***
  - ***All trees that are providing obvious signs of nesting by raptors such as large stick nests and trees with cavities shall be retained and the responsible RPF shall be notified of any such nest. The RPF will verify the nest, its usage and occupancy status with a biologist. It will then be determined when the nest tree can be removed. To date, no large nest or cavities have been found in the harvest trees.***

Bald Eagle (Haiaeetus leucocephalus) is listed as a Federal and State of California "Endangered" Species. Portions of Sonoma county are listed as winter range for the Bald Eagle in the WHR system. WHR states that for feeding, this species requires large bodies of water or free flowing rivers where fish are abundant, and hunting perches are available. There may be habitat suitable for this species to utilize within the other portions of the BAA, however, habitat for this species within the project area is not present. The Russian River could be considered the closest larger body of water that this species could utilize. The project does not propose to significantly impact the fishery resources of the watersheds that could potentially impact this species. There is no habitat for this species within the project area. The project does not propose to significantly impact the fishery resources of the watersheds.

Golden Eagle (Aquila chrysaetos)- Uncommon permanent resident and migrant throughout California, except center of Central Valley. Habitat typically rolling foothills, mountain areas, sage-juniper flats, desert. Nests on cliffs of all heights and in large trees in open areas. Habitat elements suitable for this species may exist within portions of the BAA. Habit for this species within the THP area is not present and the RPF has not observed the Golden Eagle within the project area during plan preparation nor have any nest or perch trees been observed within or near the project area. The THP area does not contain habitat elements that this species could utilize. Impacts of the proposed harvesting operations to this species are minimized by the following factors:

1)- The THP area is not a probable nesting or roosting habitat for the Golden Eagle due to the absence of cliffs and large trees in open areas.
2)- Extensive field and database review has failed to indicate present or past use of this area by the species.
3)- If a nest is observed within the plan are during timber harvesting operations, then procedures of 14 CCR 919.2(d) will be followed to minimize harvest related impacts.

Osprey (Pandion haliaetus)- Ospreys have not been known to frequent or nest within portions of the THP area. However, there area areas in the Northern and Western portions of the BAA, particularly along the Russian River corridor, that this species does utilize. No Ospreys have been observed near the project area and no known nest or perch trees were observed within the project area or within 300 feet of the plan area. Impacts of the proposed harvesting operations to this species are minimized by the following factors:

1)- The THP area is not a probable habitat for Osprey due to the absence of large nearby bodies of water which meet this species foraging requirements.
2)-If an Osprey nest is observed within the plan are during timber harvesting operations, then procedures of 14 CCR 919.2(d) will be followed to minimize harvest related impacts.

Peregrine Falcon (Falco peregrinus) is listed as a Federally and State of California Endangered Species. The WHR system lists portions of Sonoma county as both summer and winter range for this species. Protective cliffs or ledges and water are usually the necessary elements for breeding and cover. This habitat is does not appear to be available within the BAA and there is no habitat for this species within the project area.

Marbled Murrelet (Brachyramphus marmuratus) is listed as a Federally Threatened Species. Minimal information is presently known about this species. This species apparently requires dense old growth forests of redwood and Douglas-fir for breeding and nesting. The timber stand characteristics and structure s within the BAA do not appear to contain habitat elements that this species could utilize. There are no habitat characteristics present within the plan boundaries and no reasonable evidence to suggest the presence of an active Marbled Murrelet site within the BAA.

Great Blue Heron (Ardea herodias) is listed as sensitive species by the Board of Forestry. The Great Blue Heron is common throughout most of California all year round (including Sonoma county). It is commonly found in fresh and saline emergent wetlands, less common along riparian and rocky marine shores, in croplands, pastures and in mountains above foothills. The great Blue Heron feeds upon mostly fish, but also feeds upon small rodents, amphibians, snakes, lizards, insects and crustaceans. The RPF has observed one Great Blue Heron foraging in the existing pond located outside the property area on one occasion, March 29, 2002. The RPF has not personally witnessed any other Great Blue Herons foraging within or near the THP, particularly within the pond area. The potential exists within portions of the Class I watercourse, Pocket Canyon Creek, for the Heron to forage. Other portions of the BAA, particularly the Russian River system, have the potential for foraging habitat.

Great Egret (Casmerodius albus) is listed as a sensitive species by the Board of Forestry and is a common resident throughout California (including Sonoma county). The Egret feeds in fresh and saline emergent wetlands, along the margins of estuaries, lakes and slow moving streams, on mudflats and in irrigated croplands. The Egret mainly feeds upon fishes, amphibians, snails, snakes, crustaceans and small mammals. The RPF has not personally witnessed any Egrets foraging near the pond of the Class I watercourse (Pocket Canyon Creek). The potential exists within some portions of the BAA, particularly the Russian River system, for potential foraging habitat.

Great Grey Owl (Strix nebulosa) is listed as endangered by the state and sensitive by the Board of Forestry and U.S. Forest Service. Both the winter and summer ranges of this species are well outside the Biological Assessment Area of the THP.

Sharp Shinned Hawk (Accipiter striatus)-This species is listed on the CDFG Species of Special Concern. Fairly common migrant and winter resident throughout California, except in areas with deep snow. Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers, but not restricted to, riparian habitats. North facing slopes, with plucking perches are critical requirements. Roosts in intermediate to high-canopy forest. Nests in dense, even-aged, single-layered forest canopy. Winters in woodlands. Portions of the BAA may contain habitat elements suitable for this species to utilize. No nest or perch trees were observed during project preparation. Implementation of the proposed plan are not expected to significantly affect foraging opportunities or habits of this species.

Cooper's hawk (Accipiter cooperi)-The Cooper's hawk is listed as a California species of special concern. In California, this species ranges throughout the state, but is not common in the northwest and southeast. Nesting habitat of this species is most frequently in dense stands of live oak, deciduous riparian stands, and other forested habitats near water. Densities of active nests in oak woodlands in California are among the highest reported for the species. Portions of the BAA may contain habitat elements suitable for this species to utilize. No nests or sighting's were observed during project preparation.

Bank swallow (Riparia riparia) is not listed federally but is listed as threatened by the State of California. This is a colonial nester nesting primarily in riparian and other lowland habitats West of the desert. This species requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers and along the ocean to dig nesting holes. The NDDB listed one occurrence of this species outside the BAA. There may be areas for the bank swallow to dig a nest in the bank of the class I watercourse in the Eastern portion of the property.

Insects

Monarch Butterfly (Danaus plexippus)-CNDDB Rank: G5S3; General Habitat: Winter roost sites extend along the coast from Northern Mendocino to Baja Californica, Mexico; Mocro habitat: Roosts located in wind-protected tree groves (Eucalyptus, Monterey Pine and Cypress), with nectar and water sources nearby. There is no habitat for this species within the project area. The NDDB listed three occurrences of this species outside the BAA approximately 1.9 to 10.3 miles Southwest of the THP boundary.

Mammals

Red Tree Vole (Arborimus pomo)- this is listed as a federal species of special concern; State Status: None; CDFG Status: SSC. - Habitat North Coast fog belt from Oregon border to Sonoma County. Found in Douglas-fir, Redwood & Montane Hardwood-Conifer forests. Feed almost exclusively on Douglas-fir needles. No nest trees were observed during plan preparation.

Reptiles

Southern Rubber Boa (Charina bottae umbratica)- Federal status: None; State Status: Threatened; This species is found in a variety of montane forest habitats including redwood, Douglas-fir and riparian. Usually found in the vicinity of streams or wet meadows. No visual observations of this species were observed during plan preparation.

California whipsnake (Masticophis lateralis euryxanthus)-Federal status: Threatened; State Status: Threatened; This species is uncommon to common in suitable habitats the length of the Sierra, north to the vicinity of Shasta Lake, and in the Cast Ranges south from Trinity County, the entire length of the state; prefers mixed chaparral, chemise-redshank chaparral and valley-foothill riparian habitats; also occurs in a variety of other habitats, including valley-foothill hardwood and hardwood-conifer as well as various coniferous habitats. No visual observations of this species were observed during plan preparation.

Common Garter Snake (Thamnophis sirtalis)- Federal status: Endangered; State Status: Endangered; This species is wide ranging and locally very abundant and is typically associated with permanent or semi-permanent bodies of water in a variety of habitats. No visual observations were observed during plan preparation.

Torrent (Olympic) Salamander (Rhyacotriton variegaties)- This species is typically found in moist cool steep areas beneath rocks and organic debris in seeps, springs and small streams. The special order proposing this species as a candidate as a Threatened species, indicates that the Biological Assessment area and the proposed THP are outside the reported range of this species.

California red-legged frog (Rana aurora draytoni)- The red-legged frog is a moderately sized frog (males to 100 mm and females to 136 mm) and has dark dorsal spots and often with light centers. Interspot flecking is well developed and at least part of the venter and the hidden parts of the hind legs are red, and an underlying layer of yellow pigment typically is visible. The red portion of the hidden parts of the hind legs appear to be the most distinguishing feature on this species of frog, compared to other similar species. There are no classifiable watercourses within the proposed project area. However, during the course of field work for project preparation, the class II watercourse located below the proposed vineyard area was assessed for species presence or habitat elements suitable for the red-legged frog. The class II watercourse may contain habitat elements suitable for this species, but none were observed during watercourse examination. Erosion control measures incorporated in the THP, as well as the current Forest Practice Rules, will aid in mitigating soil erosion from the project site.

Northwestern Pond Turtle (Clemmys marmorata)- Federally listed Species of Special Concern-general habitat characteristics are associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites. Nest sites may be found up to 0.5 KM from water. There is an existing pond located outside and below the THP area that may contain habitat for this species. However, none were observed by the RPF during examination. No habitat for this species is present within the THP areas. Erosion control measures have been incorporated into the THP which will mitigate the potential for sediment input into any watercourses downslope from the project areas. It is anticipated that no impacts will occur to the habitat or the fishery resources of the watershed system, or its tributaries, which could significantly adversely impact the Pond turtle.

California Tiger Salamander (Ambystoma Califoniense)- Federal Status: Endangered; State Status: None; Habitat requirements need underground refuges, especially ground squirrel burrows & vernal pools or other seasonal water sources for breeding. There may be habitat for this species within the BAA, but the THP areas do not appear to contain habitat elements that this species could utilize.

Tidewater Goby (Eucyclogobius Newberryi)- Federal Status: Endangered; State Status: None; Habitat requirements: Brackish water habitats along the California coast from Agua Hadionda lagoon, San Diego County to the mouth of Smith River; found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water & high oxygen levels. There may be habitat for this species within the BAA, but the THP areas do not appear to contain habitat elements that this specie s could utilize.

Fish

Two aquatic vertebrate species that are currently listed or otherwise identified as species of concern by state or federal resource agencies occur within the assessment area. Direct (within the assessment area) and indirect (downstream of the assessment area) impacts associated with the plan were assessed for these species.

The central California coast evolutionarily significant unit (ESU) of coho salmon (Oncorhynchus kisutch) is listed as threatened under ESA. Critical habitat encompasses all river reaches accessible to coho salmon within the historical range of the ESU, and consists of the water, substrate, and adjacent riparian zone of affected estuarine and river reaches. Accessible reaches are those within the historical range of the ESU that could be occupied by any life stage of coho salmon. The Russian River, therefore, is designated critical habitat for this ESU.

Critical habitat for coho salmon includes five essential habitat types:

- ***juvenile summer and winter rearing areas;***
- ***juvenile migration corridors,***
- ***areas for growth and development to adulthood,***
- ***adult migration corridors, and***
- ***spawning areas.***

The northern California ESU of west coast steelhead is listed as threatened under ESA. This ESU occupies river basins from Redwood Creek in Humboldt County south to the Gualala River, including the Russian River. In proposing critical habitat for other steelhead ESUs, however, NOAA Fisheries (formerly the National Marine Fisheries Service) has noted that habitat quality is intrinsically related to the condition of upland areas (including headwater and intermittent streams), which provide key habitat elements (e.g., large woody debris, gravel, water quality) crucial for west coast steelhead in downstream reaches.

Neither harvest nor conversion activities will affect any of the essential habitat types for steelhead or salmon. Upstream tributary Class II watercourses will be avoided and buffered. Class III ephemeral watercourses near or adjacent to the plan area will be avoided and buffered. Maintaining underground flows for runoff and groundwater is expected to maintain cooler temperatures of runoff before it is discharged into the watercourse.

The harvest of timber and conversion to vineyard would expose soils and could potentially increase erosion and discharge of sediment into the Russian River system. Erosion control measures implemented during harvest and conversion activities would reduce potential transport of soil and prevent the increase of sedimentation into the watershed. During vineyard operations, straw mulching and cover cropping between vine rows would increase cover factors and prevent erosion. Drop inlets placed throughout the property to control drainage would include sediment detention basins. It is also anticipated that the reservoir will serve as a sink for sediment detention. As described above (see Water Quality and Soils Productivity), the proposed project (including harvest, conversion, and operations) is not anticipated to result in an increase in sedimentation into the watershed or to potentially adversely affect fisheries habitat.

Vascular Plants

Botanical surveys have been conducted by Dean Schlichting, Consulting Botanist, during the 2002 season and Matt Richmond, RCA Associates during the 2006/2007 seasons for the proposed conversion area. Copies of the reports are attached in the THP which details the surveys and results.

Conclusion

As with any timber operation there will be an impact on the biological resources of the area. Some species will be affected in the short term due do changes in habitat. However, some species will benefit from this plan due to the increase in foraging habitat. This benefit can be seen all the way up the food chain. Past harvest systems (all of different ages) employing a variety of silvicultural prescriptions over a varied timber type have worked to create a mosaic of habitat. Wildlife corridors from watershed to watershed provide a highway for diversity and habitat needs.

VISUAL IMPACT

The visual assessment area is the logging area that is readily visible to significant numbers of people who are no further than three miles from the timber operations. As a basis for determining the boundaries of this assessment area, the guidelines set forth in Technical Rule Addendum No. 2 were followed. This THP may be visible by the general public including, but not limited to, the following locations:

1. ***State Highway 116: State Route 116 is an Officially Designated California Scenic Highway. All of the proposed conversion area is within the Scenic Corridor established by Sonoma County and is therefore within a Special Treatment Area (STA). Within the Special Treatment Area of the Project, there is one silvicultural prescriptions proposed: Conversion. The timbered areas between the conversion area and the lowermost portions of the property were very lightly harvested during the #1-02-216 SON THP. Within this area, approximately 10% of the trees were harvested, leaving a heavily forested buffer between the conversion unit and highway 116. Sonoma County has adopted Goals and Objectives for the designated Scenic Corridor as described in the 1988 "Final Report of the Sonoma 116 Scenic Highway Corridor Study", however, these have never been codified (personal communication with Kathy Jacobs, Sonoma County Permit and Resource Department on October 11, 2002). The Report states "In order to protect and enhance the scenic quality of an area, it is essential to identify the elements that make up the scenic quality. The absence of one or more of these elements would significantly alter the scenic quality of the corridor". The elements discussed in this report are: trees, the Russian River, and the terrain. The primary element for this specific project that would make up the scenic quality of the corridor would be the existing trees within the property. In order to assess the potential impact that the proposed project might have to the scenic qualities of the highway 116 corridor, Mr. Joe Lieber of Cal Trans Office of Landscape Architecture and Ms. Kathy Jacobs of the Sonoma County Permit and Resources Department were contacted by the RPF in 2002. It was at this time that the previous landowner was considering a vineyard conversion. The conversion was later withdrawn, however, the RPF believes that the following information is pertinent to this proposed Project. A field inspection was conducted on Friday, October 11, 2002, by the RPF, Mr. Joe Lieber, Ms. Kathy Jacobs to review the project area and assess the potential impacts. The trees proposed for harvesting, as well as the proposed conversion area, was reviewed on the ground. During this field inspection, a computer generated graphical presentation depicting the pre and post-harvest development was reviewed in conjunction with the field visit. The RPF also presented graphical profiles of the proposed project area (post development) from several different viewing angles from highway 116 to further assess the potential impact to the scenic qualities and this material was reviewed during the field visit. In order to assess the potential impacts to the scenic corridor of Highway 116, the RPF has performed a graphical simulation to assess the impacts that the project might have on the visual resources of Highway 116. The graphical simulation utilized aerial photo's, digital pictures of the project sight as seen from Highway 116, 3-D topographical maps with graphic simulation of both pre and post development and topographic profiles of several viewing angles from Highway 116 (refer to Appendix G for detail). The heavily forested buffer strip between the conversion unit and highway 116 will provide a sufficient "screen" when viewed from highway 116. This "screen" of trees between the conversion area and highway 116 should provide an adequate filter so as to not cause a significant visual impact. The majority of the roads, skid trails and landing areas associated with the Project will not be easily seen by the general public as there will be sufficient trees and associated vegetation to adequately screen them from view.***

2. ***Subdivision located across (East) from the Project area (Noel Heights): The East facing portions of the Project area may be more easily seen from the residences, or subdivision, located on the East side of Highway 116, or Noel Heights subdivision, particularly those residences located higher up the slope. It is possible that some of the homes located within this subdivision can easily view portions of the Project area. This is because some of the homes may have a more direct line of site to the conversion area. However, vegetative screening between the project area and the properties nearest and with the best views of the plan area (i.e., properties to the East) will mitigate visual impacts on neighbors. Moreover, timber harvesting is a long-established land use practice in the visual resource assessment area, and the local landscape clearly depicts the legacy of extensive forest management and forest clearing for agricultural development. Future vineyard development will alter the landscape of the plan area. However, the proposed vineyard development would be highly consistent with the general character of the visual resource assessment area landscape, which is dominated by woodland interspersed with vineyards and rural development. Like much of Sonoma County, the assessment area supports a mosaic of mixed-conifer/hardwood forests, open, grassy ridgetops, vineyards, and rural development. Because the proposed project is consistent with existing land uses and would not substantially change the overall scenic quality or specific vistas in the area, the project is not expected to have a significant effect on the character or setting of the area.***

VEHICULAR TRAFFIC IMPACTS

The assessment area for the vehicular traffic impacts involves the first roads not part of the logging area on which logging traffic must travel. As a basis for determining the boundaries of this assessment area, the guidelines set forth in Technical Rule Addendum No. 2 were followed. The nearest public road that will be used for truck traffic to and from the proposed project site is State Highway 116. Highway 116 is a two lane state highway maintained road that is paved. This road has been historically used to transport forest products to the local mills from neighboring properties throughout the years. The log hauling operations are anticipated to last approximately two to three months. Once log hauling operations are complete, the traffic flow will return to normal for this segment of road. If the above measures are implemented during timber harvesting operations, impacts to the traffic resources will not be significant.

As mentioned under future projects, there are several other plans within the local area and it is possible, although unlikely, that these plans could be operated at the same time as this plan. If this were to occur, highway 116 could receive an increase in the amount of logging truck traffic than what could be considered normal in recent years. This potential increase in traffic, both logging crew and log trucks, should not overburden the county road if properly conducted according to the provisions within the plans, even when considering the possibility of the projects operating at the same time. Should all the projects be operated at the same time, the duration of the projects should only last two to three months. Once the projects are complete, impacts to the traffic resources will return to normal. Any future timber harvesting activities from these project areas will strictly comply with the provisions of the plans.

The RPF thus determines that no reasonably potential significant effects could occur to any of the resources of concern evaluated above.

<u>Hydrology</u>

Conversion of timberland to vineyard, as well as subsequent vineyard management, can affect local rates of infiltration, runoff, groundwater recharge, evapotranspiration, and streamflow. By changing runoff rates and altering natural drainage patterns, vineyard establishment and management can also potentially affect erosion rates. Increased runoff rates resulting from soil disturbance and compaction and removal of forest soil cover (i.e., litter and duff) could lead to increased runoff associated with major storms.

Because vineyard vegetative cover (i.e., rows of grapevines with a cover crop between rows) typically consumes substantially less water through transpiration than forest or woodland cover and consumes approximately the same amount as grassland cover, the amount of precipitation available to infiltrate the aquifer or contribute runoff to streams is expected to increase following vineyard establishment. Even though approximately 10 acre-feet of sheetflow would be captured annually in the onsite reservoir for subsequent irrigation of vines, average rates of aquifer recharge are expected to increase slightly as a result of vineyard establishment. Although the capture of sheetflow could result in minor reductions in streamflows, such reductions would only occur during runoff periods when flows in the Pocket Canyon Creek exceed instream and offstream water demands.

Because the proposed offstream storage reservoir would be capable of capturing the runoff resulting from most storms, any increase in runoff associated with vineyard development would have a negligible effect on flood hazards or damages.

With the conversion from timberland to vineyard, It is expected that the implementation of the proposed project could result in runoff that exceed current levels. However, these increased flows will be attenuated by the proposed reservoir and catch basins. Runoff will be stored in these basins and will be discharged at a rate and volume that mimics existing conditions. The proposed project is not expected to result in any significant increase of peak runoff volumes or discharge rates.

Changes in runoff or an increase in erosion from the proposed project site are directly related to physical and chemical properties (ie: permeability, available water capacity, soil reaction, salinity, shrink-swell potential, soil erodibility factor and soil-loss tolerance) and soil and water features (ie: Hydrologic soil group, flooding, seasonal high water table and depth to bedrock) of the soil. An increase in runoff is related to amount of precipitation and the soils infiltration rate when thoroughly wet and vegetative cover. The Sonoma County Soil Survey categorizes soil series into Hydrologic Soil Groups to estimate runoff from precipitation. Soils not protected by vegetation are placed in one of four groups on the basis of the intake of water after the soils have been wetted and have received precipitation from long-duration storms. The four hydrologic soils groups are as follows:

GROUP A: Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist chiefly of deep, well drained to excessively drained sands and gravels. These soils have a high rate of water transmission.

GROUP B: Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep to deep, moderately well drained to well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

GROUP C: Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils that have a layer that impedes the downward movement of water or soils that have a moderately fine texture or fine texture. These soils have a slow rate of water transmission.

GROUP D: Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clay soils that have a high shrink-swell potential, soils that have a clay pan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

The THP area is blanketed by one soil series, the Hugo-Josephine (HnG) Series. The Hugo-Josephine (HnG - 50 to 75% slopes) consists of well-drained very gravelly loams that have a gravelly sandy clay loam subsoil. At a depth of 30 to 60 inches the soils are underlain by weathered, fine grained sandstone and shale. This soil is found on mountainous uplands. Runoff is very rapid and the hazard of erosion is very high. Hugo soils are mainly used for timber.

The project area has been assessed by two geologists, a Civil and Ag Engineer, and a geotechnical engineer regarding hydrology and sedimentation issues. The reports are attached for reference.

The TCP, ECP and THP contain erosion control measures to prevent against increased runoff and potential accelerated erosion. These measures include the following:

- ***Installation of drainage structures in areas of concentrated flows on all roads and in areas delineated on the Erosion Control Plan.***
- ***Installation of silt fencing in accordance with the Erosion Control Plan.***
- ***Straw bale dikes and/or sediment log barriers will be installed in areas of low topography or swale areas prior to October 15 of the year of operations. Specific locations have been delineated on the Erosion Control Plan.***
- ***Straw mulching and seeding cleared areas prior to October 15 of the year of operations to provide plant residues and densities of approximately 95% to minimize sheet and rill erosion. The following are the rates of application:***

Seed/Straw	*Lbs./Acre*
Zorro Fescue	*25.0*
Blando Brome	*12.5*
Rose Clover	*7.5*
Crimson Clover	*5.0*
	50.0 Lbs/acre
Straw Mulch	*4000*

- ***All seeded areas will be maintained, repaired, reseeded and re-mulched as needed.***
- ***Limiting all logging and clearing operations to the non-winter (April 1 to November 15) period.***
- ***Regular (weekly) field inspections during the winter period (November 15 to April 1) to check that all erosion control structures are functioning properly to ensure that there is no net increase of sediment transport.***

It is anticipated that a slight increase in runoff could be expected from the project site, particularly during the first winter period. During the seasons to follow, any anticipated increase in runoff from the project site will decrease as the vines and ground vegetation becomes well established and maintained. Existing sources of sediment will be restored and/or repaired resulting in a beneficial impact to the watershed resources.

REFERENCES

Cover Crops: A Practical Tool for Vineyard Management,
Technical Projects Committee of the American Society for Enology and Viticulture in Association with the Viticulture and Enology Research Center, June 1993

The Universal Soil Loss Equation Worksheet
Special Applications for Napa County, California
USDA, Natural Resources Conservation Service
May, 1994

Soil Quality Information Sheets
USDA, Natural Resources Conservation Service
April, 1996

Developing a Hillside Vineyard
Lisa Woo Shanks, Napa County Resource Conservation District, March, 1992

Sample Costs to Establish a Vineyard and Produce Wine Grapes
U.C. Cooperative Extension-1992

Farming the Environment: Agriculture for the Future
Dennis Bowker, Resource Conservationist

Comparison of 32 Cover Crops in an Organic Vineyard on the North Coast of California, Robert L. Bugg, Sustainable Agriculture Research and Education Program, U.C. Davis, CA

HILLICK RANCH TIMBERLAND CONVERSION ENVIRONMENTAL INFORMATION FORM

APPENDIX H

Date Filed:_____

GENERAL INFORMATION:

1. Name and Address of developer or project sponsor:

Paul Hobbs, 3355 Gravenstein Highway North, Sebastopol, CA 95472, (707) 280-9745

2. Address of Project: 11650 Pocket Canyon Rd.

3. Name, Address And Telephone number of person to be contacted concerning this project:

Glenn T. Edwards, RPF #2363, GTE & Associates, Forestry Consultants, P.O. Box 997, Ukiah, CA 95482, 707-489-8688

4. Indicate number of the permit application for the project to which this form pertains:

The Timberland Conversion Permit is currently under review and has not been given a permit number.

5. List and describe any other related permits and other public approvals required for this project, including those required by city, regional, state and federal agencies:

State Level: ***The proposed Timberland Conversion Permit is required by the California Department of Forestry and Fire Protection (Cal Fire) for conversion of timberland to vineyard. A Timber Harvest Plan (THP) is required in order to harvest and clear the timber and other vegetation. The THP will become part of the Conversion Application upon approval.***

6. Existing Zoning District:

The property is zoned Resources and Rural Development (RRD) with 100 acre densities.

7. Proposed use of the site (Project for which this form is filed):

The proposed use of the site is for vineyard production.

PROJECT DESCRIPTION

8. Site Size:

The total acres for the property is 167 acres. The proposed conversion areas encompass a total of approximately 10 acres.

9. Square Footage:

Not Applicable

10. Number of floors of construction:

Not Applicable

11. Amount of off-street parking provided:

Not Applicable

12. Attach Plans:

This form is to accompany the Conversion Application, which is the document presenting the proposed plan for conversion. A Timber Harvest Plan (THP) will be submitted to the state which is to accompany this Conversion Application request and will also become part of the application once approved. An Erosion Control Plan (ECP) has been prepared and will be submitted to Sonoma County for review and approval which is to accompany this Conversion Application request and will also become part of the application once approved.

13. Proposed Scheduling:

The work involved in vineyard development shall be scheduled as follows:

● *May, 2008*	*Submit Conversion Application documents for review and approval.*
● *First operating season*	*Commence logging activities on all vineyard blocks. Following completion of logging operations, piling of slash and stumps to be implemented. Grade necessary areas, cross rip vineyard, disc and remove rocks and roots as needed. Introduce soil amendments as needed. Install drain systems, rock check dams, detention basins, energy dissipater and sediment barriers as prescribed in Erosion Control Plan. Prior to October 15, plant temporary cover crop on entire vineyard areas, spread straw mulch and irrigate cover crop until established.*
● *First winter period*	*Maintain all erosion control measures throughout winter period through weekly inspections. Burn slash piles as permitted.*
● *Second operating season*	*Mow cover crop, install irrigation system, stakes and trellis system for grape vines and plant rootstock. Install, maintain and/or repair erosion control measures as needed on all vineyard areas.*
● *Second winter period*	***See annual maintenance schedule below***

Annual Maintenance Schedule

All permanent erosion control measures will be continually monitored and maintained throughout the vineyard development areas. Particular attention will be given prior to and during the winter period (October 15 to May 1). Measures to ensure that all erosion control measures of the project are properly implemented and maintained on an annual basis will include bu not be limited to the following practices:

- ***Reseed cover crop as needed to maintain plant residues and densities at 95% and straw mulch on vineyard blocks, roads, avenues, benches and erosion prone areas as needed.***
- ***Install additional erosion control fencing and straw bale sediment barriers as needed.***
- ***Maintain sediment retention structures, road side ditches, culverts, drop inlets, rock-lined energy dissipater, rock check dams and related sediment control structures.***

The above plan of development is tentative and the schedules indicated are estimates only and may be subject to change by factors beyond the control of the applicant.

14. Associated projects:

There is a Timber Harvest Plan for the project area that is associated with this conversion application.

15. Anticipated incremental development:

Not Applicable

16. If residential, include the number of units, schedule of unit sizes, range of sale prices or rents, and type of household size expected.

Not Applicable

17. If commercial, indicate the type, whether neighborhood, city or regionally oriented, square footage of sales area, and loading facilities:

Not Applicable

18. If industrial, indicate type, estimated employment per shift, and loading facilities:

Not Applicable

19. If institutional, indicate the major function, estimated employment per shift, estimated occupancy, loading facilities, and community benefits to be derived from the project:

Not Applicable

20. If the project involves a variance, conditional use or rezoning application, stat this and indicate clearly why the application is required:

Not Applicable

ARE THE FOLLOWING ITEMS APPLICABLE TO THE PROJECT OR ITS EFFECT? DISCUSS BELOW ALL ITEMS CHECKED YES (Attach additional sheets as necessary)

YES NO

✔ ___ ***21. Change in existing features of any bays, tidelands, beaches, lakes or hills, or substantial alteration of ground contours.***

During the process of mechanical land clearing, some minor grading will occur to even out any slight irregularities of topography, such as a hump or a depression in the soil surface. The grading will be an attempt to even the soil surface rather than a significant rearrangement of topography. Any such change in soil surface contour is expected to be less than three (3) feet in depth and cover a small area (less than 1/8 acre). This ground surface grading will be very minimal and not be significant. There will be a change in the features of the hill area, as well as the ground contours within the proposed site. During the process of mechanical land clearing, some grading will occur to even out any slight irregularities of topography, such as a hump or a depression in the soil surface.

There will be no change to existing features of any bays, tidelands, beaches or lakes as a result of the proposed project. All movement of earth shall comply with the specifications contained in the erosion control plan.

✔ ___ ***22. Change in scenic views or vistas from existing residential area or public lands or roads.***

The proposed conversion area which is located primarily along the Easterly facing slope of a divide ridge area and lies within an Officially State Designated Scenic Highway Corridor for State Highway 116. This route was officially Designated as a State Scenic Highway on September 20, 1988. The corridor boundary was determined by what is "generally adjacent to and visible from the highway. It is usually limited by topography and/or jurisdictional boundaries."The boundaries of the Scenic Highway Corridor extend from highway 116 (Pocket Canyon Road) up to the divide ridge (refer to attached Plat Maps for location). The proposed conversion area may be visible by the general public including, but not limited to, the following locations:

1. ***State Highway 116: State Route 116 is an Officially Designated California Scenic Highway. All of the proposed conversion area is within the Scenic Corridor established by Sonoma County and is therefore within a Special Treatment Area (STA). Within the Special Treatment Area of the Project, there is one silvicultural prescriptions proposed: Conversion. The timbered areas between the conversion area and the lowermost portions of the property were very lightly harvested during the #1-02-216 SON THP. Within this area, approximately 10% of the trees were harvested, leaving a heavily forested buffer between the conversion unit and highway 116. Sonoma County has adopted Goals and Objectives for the designated Scenic Corridor as described in the 1988 "Final Report of the Sonoma 116 Scenic Highway Corridor Study", however, these have never been codified (personal communication with Kathy Jacobs, Sonoma County Permit and Resource Department on October 11, 2002). The Report states "In order to protect and enhance the scenic quality of an area, it is essential to identify the elements that make up the scenic quality. The absence of one or more of these elements would significantly alter the scenic quality of the corridor". The elements discussed in this report are: trees, the Russian River, and the terrain. The primary element for this specific project that would make up the scenic quality of the corridor would be the existing trees within the property. In order to assess the potential impact that the proposed project might have to the scenic qualities of the highway 116 corridor, Mr. Joe Lieber of Cal Trans Office of Landscape Architecture and Ms. Kathy Jacobs of the Sonoma County Permit and Resources Department were contacted by the RPF in 2002. It was at this time that the previous landowner was considering a vineyard conversion. The conversion was later withdrawn, however, the RPF believes that the following information is pertinent to this proposed Project. A field inspection was conducted on Friday, October 11, 2002, by the RPF, Mr. Joe Lieber, Ms. Kathy Jacobs to review the project area and assess the potential impacts. The trees proposed for harvesting, as well as the proposed conversion area, was reviewed on the ground. During this field inspection, a computer generated graphical presentation depicting the pre and post-harvest development was reviewed in conjunction with the field visit. The RPF also presented graphical profiles of the proposed project area (post development) from several different viewing angles from highway 116 to further assess the potential impact to the scenic qualities and this material was reviewed during the field visit. In order to assess the potential impacts to the scenic corridor of Highway 116, the RPF has performed a graphical simulation to assess the impacts that the project might have on the visual resources of Highway 116. The graphical simulation utilized aerial photo's, digital pictures of the project sight as seen from Highway 116, 3-D topographical maps with graphic simulation of both pre and post development and topographic profiles of several viewing angles from Highway 116 (refer to Appendix G for detail). The heavily forested buffer***

YES NO

strip between the conversion unit and highway 116 will provide a sufficient "screen" when viewed from highway 116. This "screen" of trees between the conversion area and highway 116 should provide an adequate filter so as to not cause a significant visual impact. The majority of the roads, skid trails and landing areas associated with the Project will not be easily seen by the general public as there will be sufficient trees and associated vegetation to adequately screen them from view.

2. *Subdivision located across (East) from the Project area (Noel Heights): The East facing portions of the project area may be more easily seen from the residences, or subdivision, located on the East side of Highway 116, or Noel Heights subdivision, particularly those residences located higher up the slope. It is possible that some of the homes located within this subdivision can easily view portions of the Project area. This is because some of the homes may have a more direct line of site to the conversion area. However, vegetative screening between the project area and the properties nearest and with the best views of the plan area (i.e., properties to the East) will mitigate visual impacts on neighbors. Moreover, timber harvesting is a long-established land use practice in the visual resource assessment area, and the local landscape clearly depicts the legacy of extensive forest management and forest clearing for agricultural development. Future vineyard development will alter the landscape of the plan area. However, the proposed vineyard development would be highly consistent with the general character of the visual resource assessment area landscape, which is dominated by woodland interspersed with vineyards and rural development. Like much of Sonoma County, the assessment area supports a mosaic of mixed-conifer/hardwood forests, open, grassy ridgetops, vineyards, and rural development. Because the proposed project is consistent with existing land uses and would not substantially change the overall scenic quality or specific vistas in the area, the project is not expected to have a significant effect on the character or setting of the area.*

✔ ___ *23. Change in pattern, scale or character of general area of project.*

There will be a slight change in the character of the general area due mainly to the change in vegetation type from a mosaic mixture of timber and oak/woodland to vineyard production. However, this change is anticipated to be minimal in nature due in part to the recent trend in vineyard development within this area in th last five years. This portion of Sonoma county is becoming known for its premium vineyard production and the proposed project will not cause a significant adverse change in the pattern or character of the project site or the general vicinity.

___ ✔ *24. Significant amounts of solid waste or litter.*

✔ ___ *25. Change in dust, ash, smoke, fumes or odors in vicinity.*

There will be a slight increase in the dust and odors within the vicinity of the proposed site during logging and clearing activities and winter burning activities. The greatest increase in dust will more than likely occur during clearing and development of the vineyard. Upon completion of vineyard planting, the dust levels should return to a normal pre-project level. During logging and clearing operations, water will be utilized on the associated roads for dust abatement purposes during timber hauling operations. This treatment will effectively minimize dust problems during increased levels of logging activity and truck traffic. A short term increase in smoke and ash within the immediate vicinity of the project is anticipated during the burning of the slash piles during the winter period. This will be short term in nature as once the piles are burned the smoke and ash

levels will return to natural background levels. A slight increase from the background odor levels could be expected, particularly during and upon completion of grape harvesting. This slight increase in odor level should not be significantly higher than the present background odor level.

___ ✔ *26. Change in ocean, bay, lake, stream or ground water quality or quantity, or alteration of existing drainage patterns.*

YES NO

__ ✔ ***27. Substantial change in existing noise or vibration levels in the vicinity.***

During the course of project development, there will be a short term increase in the level of noise within the immediate area surrounding the project area. However, this increase in noise levels will be temporary and of short duration. Post-conversion noise levels will not be substantially different from existing levels. The typical noise associated with vineyard maintenance will not contribute on a daily basis; it will occur regularly but not constantly. The proposed development operations will not cause significant long term increases in noise pollution within the area.

✔ __ ***28. Site on filled land or on slope of 10 percent or more.***

The topography of the proposed conversion areas ranges from 0 to 30% with an average slope being approximately 18%.

✔ __ ***29. Use or disposal of potentially hazardous materials, such as toxic substances, flammables or explosives.***

Vineyard production typically involves the use of fewer toxic pesticides and herbicides than many agricultural crops produced elsewhere. Therefore, the chance for accidental unplanned release is significantly less. The landowner's intent is to not use herbicides for the first two growing seasons. There will be a permanent no-till cover crop established and maintained within the proposed vineyard area. Fertilization and mulching of the seed mix will be required and performed as detailed on the erosion control plan. Hand labor and mowing will be the primary defense against weed vegetation between vine rows during the first two growing seasons.

All farming practices will consider all manner of organic, bio-dynamic, sustainable and IPM (Integrated Pest Management) approaches to farming the vineyard areas. The applicant will strive to keep the chemical usage to a minimum both in terms of quantity and quality., Sulfur is the predominant fungicide to be used once the grapevines are established and will be applied in either wetable or dust formulations. The typical period of application begins in February or March and can continue through to July on an interval, based on weather conditions, but less than every 10 to 14 days. It is likely that the fungicides known as sterol inhibitors may be used on the vines beginning potentially in May and continue into July. Some common commercially available products include Rally, Rubigan and Bayleton. The interval for these compounds is a litter greater than Sulfur or approximately 14 to 21 days.

Other chemical applications could include contact herbicides such as Roundup. Roundup would be applied around the vines in the third growing season to reduce native vegetative competition. The timing of the spray program is weather dependent but could begin as early as December to February and end in June or July. Ideally there sill be one application, but depending on weather conditions, there could be as many as three applications during the December thru July period. The strategy is to spray the area around the vine when there is about 6 to 10 inches of cover so a covering thatch is generated to protect the soil surface. Roundup has been chosen for its fast action, short half-life and resistance to movement in the soil environment. Only non-leaching herbicides will be used in the vineyard area for weed control within the vine rows.

There will be no flammable or explosive materials used in the development of the project site. The risk of a release of hazardous substances in the event of an accident or upset conditions is considered very low.

__ ✔ ***30. Substantial change in demand for municipal services (police, fire, water, sewage, etc.).***

__ ✔ ***31. Substantial increase of fossil fuel consumption (electricity, oil, natural gas, etc.).***

YES NO

__ ✔ ***32. Relationship to a larger project or series of projects.***

There is a Timber Harvest Plan (THP) and an Erosion Control Plan (ECP) that accompanies this conversion application. The THP will be submitted to the Department for review and approval. The ECP will be submitted to Sonoma County for review and approval.

ENVIRONMENTAL SETTING

33. Describe the project site as it exists before the project, including information on topography, soil stability, plants and animals, and any cultural, historical or scenic aspects. Describe any existing structures on the site, and the use of the structures. Attach photographs of the site. Snapshots or Polaroid photos will be accepted.

Site Description
The property is located off of State Highway 116, Pocket Canyon Road, near the town of Guerneville. The property encompasses approximately 167 acres, 10 acres of which is proposed for timberland conversion. The legal description of the THP area is: portions of the South ½of Section 33 and portions of the Southwest ¼of Section 34, T8N, R10W, M.D.B.&M. (see attached THP maps). The center of the proposed conversion area are located approximately 1.8 air miles South ±66° East from the town of Guerneville. The plan is located within several unnamed tributaries to the Russian River. Slopes within the conversion areas range from 0% to 30%, with an average slope of approximately 18%. The proposed conversion area has a North Easterly facing aspect. Elevations within the property range from a low of approximately 200 feet above sea level to a high of approximately 650 feet above sea level for a total change in elevation of 350 feet. The native vegetation is primarily second growth redwood, Douglas-fir and hardwoods.

Structures on-site
There are no structures currently on site.

Vegetation on-site
The conversion area has been determined to be Site Class III timberland. The timber stand is composed of an overstory of primarily dominant second growth redwood and Douglas-fir in varying densities. The understory consists of conifer regeneration and hardwoods (primarily Tanoak and Madrone). Age class of the overstory conifers ranges from 85-100 year old second growth redwood and Douglas-fir. The understory vegetation composition consists of young Tanoak hardwoods, Douglas-fir regeneration in varying densities, poison oak, manzanita, huckleberry, and smaller hardwoods species. The ground cover consists of leaf litter, ferns, native grasses and forbes.

Plants and Animals

Animals:
During pre-field research for conversion plan preparation, several sources were queried for biological resources, particularly plants and animals designated as rare, endangered, threatened or species of special concern, were evaluated within and adjacent to the proposed project area. An "evaluation" list of those species whose range and habitat requirements could possibly overlap the proposed project areas was compiled utilizing the Natural Diversity Data Base (NDDB-Quad overlays for the Camp Meeker, Guerneville and Duncans Mills Quads and fully condensed reports-December 2005), the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California and the Forest Practice Rules were used as scoping tools to identify habitat and/or individuals species occurrences within or near the proposed project area. Refer to attached CEQA checklist which provides detailed information relative to individual species. The following is a list of the sources queried during pre-field research:

- ***Wildlife Identification Handbook; CLFA Workshop; November, 1990.***
- ***1989 Annual Report on the status of California's State Listed Threatened and Endangered Plants and Animals; Pub. by Calif. State Resources Agency, Dept. of Fish and Game; Mar., 1990.***
- ***"California Wildlife". Vol. , II, III; Pub. by California Dept. of fish and Game; Mar., 1990.***
- ***Consultation and correspondence with Dean Schlicting, Consulting Botanist, Box 435, Calpella, CA 95418, 707-485-7211.***
- ***State and Federal Endangered and Threatened Animals of California (Revised Oct. 1990), State of California, The Resources Agency, Department of Fish and Game.***
- ***California Native Plant Society-Electronic Inventory Of Rare and Endangered Vascular Plants of California, 1998.***
- ***California Department of Fish and Game Natural Diversity Data Base, RareFind 2, quad overlay for the Camp Meeker, Duncans Mills, and Guerneville Quads, run date 12/2005; Fully Condensed Summary Reports.***
- ***California Department of Fish and Game. November 1994. Coho Salmon Habitat Impacts Qualitative Assessment Technique for Registered Professional Foresters.***
- ***California Report on Impaired Surface Waters prepared as required in Clean Water Act Section 303(d), March 1998, State of California Regional Water Quality Control Board San Francisco Bay Region.***
- ***Hartman, Steven L., California Plant Communities. (Reseda, CA Nature Base, 1997).***
- ***Peterson, Roger Tory, A Field Guide to Western Birds (Boston New York: Houghten Mifflin Company, 1990).***
- ***Sawyer, John O., and Todd Keeler-Wolf, A Manual of California Vegetation. (Sacramento; California Native Plant Society, 1995).***

Four formal protocol level surveys were conducted during plan preparation, one for the Northern Spotted Owl, one for the Northern Goshawk , one for raptors, and one for Vascular Plant species. These surveys have been briefly discussed below:

Northern Spotted Owl surveys: Protocol-level surveys were conducted throughout the 2001 thru 2008 breeding seasons by the RPF and his staff in accordance with the guidelines specified in the "Protocol for surveying proposed management activities that may impact Northern Spotted Owls", endorsed by the U.S. Fish and Wildlife Service, Revised March 17, 1992. The protocol-level surveys consisted of six separate site visits (6 separate surveys spaced at least 5 days apart) in the designated survey area between the March 15 to August 1 period. To date, northern spotted owls have not been observed or detected within the proposed plan area. The THP area and associated areas of influence were mapped for northern spotted owl habitat per guidelines specified by the U.S. Fish and Wildlife Service. The potential effects of the proposed harvesting operations on the habitat, both pre and post-harvest operations, were also mapped. This material will be submitted to CAL FIRE and the U.S. Fish and Wildlife Service for technical assistance in securing a "No Take" status for the proposed project. This material will be presented to the Department prior to second review for this plan.

Compliance with the disclosure requirements of the FPR and CEQA regarding NSO guidelines:

- ***No timber operations will occur until a valid NSO technical assistance (TA) has been obtained from the USF&WS and amended into the plan.***
- ***Surveys from the 2001 thru 2008 seasons have been conducted in conformance with the USF&WS approved NSO survey protocol. Technical Assistance letters for the 2005 and 2006 seasons have been secured through the USF&WS for operations conducted under THP #1-02-216 SON. These letters are attached for reference in Section V of the THP.***
- ***Should a NSO activity center be located within or adjacent to the plan area, the following standard protection measures will be adopted (in accordance with a subsequent TA with the USF&WS):***
  - ***(a): the buffer zone for NSO's shall consist of the area within a 1000 ft. radius of a tree or trees containing a nest or supporting an activity center.***
  - ***(b): no timber harvest operations will occur within a 500 ft. radius of a NSO activity center, and at a minimum the habitat qualities of functional roosting habitat (minimum 60% canopy, avg. stand trees > 11" DBH) will be maintained within the areas between 500 ft. radius and 1000 ft. radius.***
    - ***©: the critical period for NSO breeding is February 1 until August 31. During the critical period, no timber harvest operations are permitted within the buffer zone.***
    - ***(d): helicopter yarding within 0.50 miles of a NSO activity center is prohibited between February 1 and August 31.***

- *(e): a minimum of 500 acres of suitable NSO habitat will be retained within an area out to 0.7 miles, surrounding a tree ro trees containing a nest or supporting an activity center.*
- *(f): a minimum of 1336 acres of suitable NSO habitat will remain post-harvest within the area out to 1.3 miles, surrounding a tree or trees containing a nest or supporting an activity center.*

- *The person who submitted the original plan, or the successor in interest will submit subsequent consultations or letters of technical assistance to the Department as enforceable amendments to the plan prior to operations being conducted pursuant to theat consultation or letter of technical assistance.*

Northern Goshawk: The Goshawk is listed as a Sensitive Species that is a year round resident of portions of Sonoma County. The WHR system indicates that the species uses larger dominant conifer and deciduous stands for nesting and cover within the densest components of a stand. Snags and spike trees are also utilized as observational perches. Two protocol-level surveys were conducted in the 2002 through 2008 seasons by the RPF in accordance with guidelines specified in the "Survey protocol for Northern Goshawk (Accipiter gentilis) on National Forest lands in the Pacific Southwest Region" June 5, 1992. The protocol-level surveys consisted of two separate site visits within the THP area in which broadcasted tape recordings of goshawk vocalizations (utilizing broadcast equipment) were performed within the THP area. The surveys were conducted during the nestling period (early June through early July) and the post-fledging dependency period (early July through the August). To date no responses have been detected within the THP area during project preparation.

Compliance with Fish & Game Code 3503.5
A focused nesting raptor survey was conducted during the 2002 - 2008 seasons. The survey methodology consisted of the following:

<u>Survey Methodology</u>
Survey 1: Consisted of the RPF systematically traversing the plan area to look and listen for breeding raptors, raptor nests, and sign (ie. feathers, white wash, plucking posts, etc.). All Raptor sightings, raptor nests, and sign were recorded. The traverse was conducted in the early morning hours (just prior to sunrise) and concluded around 11 am. The lines of traverse were no further than 50 meters apart and provided coverage of the entire project area. If a raptor or a potential raptor nest was observed within or near the proposed project area that the RPF could not identify, a wildlife biologist would be employed to confirm the identification of any such raptors and/or potential nests.

Survey 2: Consisted of a "sit and wait" survey. The RPF visited three locations where "sit and wait" survey station were located so that optimum acoustical and optical coverage was achieved (refer to attached raptor survey map for location of survey station). These stations were visited for 60 minutes during the time the RPF looked and listened for raptors. If a raptor or a potential raptor nest was observed within or near the proposed project area that the RPF could not identify, a wildlife biologist would be employed to confirm the identification of any such raptors and/or potential nests.

<u>Survey Results:</u>
The RPF identified one nest structure in a 27" DBH second growth Douglas-fir tree within the Eastern portion of the property that appeared to be utilized by a red shouldered hawk. This nest tree is located approximately 125 feet East from the closest THP boundary. This tree has been retained from the previous THP (#1-02-216 SON) and will not be disturbed. No other raptor species or associated nest trees were observed within the proposed THP areas by the RPF during plan preparation.

During timber harvesting activities, to insure the intent of Fish and Game Code Section 3503.5 pertaining to no loss of an active raptor nest the LTO shall.

- *Physical Inspection*
  - *Prior to harvesting, each tree harvested will be inspected by the LTO and or his fallers for any active raptor nests.*

- *Retention*
  - *All trees that are providing obvious signs of nesting by raptors such as large stick nests and trees with cavities shall be retained and the responsible RPF shall be notified of any such nest. The RPF will verify the nest, its usage and occupancy status with a biologist. It will then be determined when the nest tree*

can be removed. To date, no large nest or cavities have been found in the harvest trees.

Plants

Botanical surveys were performed by Dean Schlicting in 2002 and Matt Richmond in 2006/2007. The reports are attached which details information relative to vascular plants.

Cultural and Historical Resources

A records search was performed through the Northwest Information System to determine if there were any previously recorded cultural or historical sites or surveys located within or near the proposed conversion areas. In addition, a field survey was preformed by the RPF to look for signs of any cultural or historical resources located within the proposed conversion area. There are no known historical or cultural resources within the proposed project site (refer to attached confidential archaeological addendum).

34. Describe the surrounding properties, including information on plants or animals and any cultural, historical or scenic aspects. Indicate the type of land use (residential, commercial, etc.), intensity of land use (one-family, apartment houses, shops, department stores, etc.). Attach photographs of the vicinity. Snapshots or Polaroid photos will be accepted.

The properties located to the East of the proposed project area consist of primarily single family rural residential subdivision parcels of various lot sizes. The properties located to the South of the project area consist of larger size parcels that are primarily used for vineyard production and single family rural residential use. The parcels to the West are larger parcels that are primarily used for single family rural residential use. The properties located to the North of the project area consists of various size single family rural residential properties and open space/watershed. The properties located to the East and North of the project area lie within the officially designated scenic corridor of State highway 116.

CERTIFICATION: I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for the initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: May 24, 2008 ***Signature:*** _____